

DESCRIPTIONS OF SOME NEW AFRICAN SPECIES  
OF *OPIUS* FROM THE TOWNES COLLECTION  
(HYMENOPTERA : BRACONIDAE : OPIINAE)

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Abstract

Keys are proposed for identification of 14 species of the subgenus *Grimnirus* Fischer and 11 Old World species of the subgenus *Frekius* Fischer (genus *Opius* Wesmael, Hym., Braconidae, Opiinae). The following species are described as new: *Opius (Grimnirus) eutownesi*, *ileifensis*, *nigeriensis*, *obuduensis*, *toromojaensis*, and *Opius (Frekius) nairobiicus*. Important morphological details are figured.

Among the *Opius* in the Townes Collection there are some new species belonging to the subgenera *Grimnirus* Fischer and *Frekius* Fischer. Below they are described in full. I make use of the occasion to revise the Old World species of the subgenera mentioned, and propose new keys for identification of the species involved.

The following abbreviations are used: AEI = American Entomological Institute; r1, r2, r3 = abscissae of radial vein (r); ccl, cc2 = cubital cross veins; d = discoidal vein; nr = recurrent vein; np = parallel vein, R = radial cell; Cu2 = second cubital cell; B = brachial cell.

I wish to thank Dr. Henry K. Townes very much for all the valuable assistance he granted me in my research work on the systematics of the Braconidae.

Subgenus **GRIMNIRUS** Fischer

Subgenus *Grimnirus* Fischer, 1971. Ann. Naturh. Mus. Wien 75: 389, 391.

*Type-species: Opius fuscicarpus* Szépligeti (designated by Fischer 1972). Appeared actually 1972. Fischer, 1972. Das Tierreich 91: 70. Fischer, 1973. Polskie Pismo Ent. 43: 242 (key to Ethiopian species).

Mesoscutum with dorsal fovea, precoxal suture sculptured, mouth closed, mandibles not expanded at base, clypeus without tooth on lower edge, head dorsally smooth or at most occiput punctate, metasoma at least with fine sculpture on tergite (2 + 3), nr postfurcal.

All species of this subgenus are known from Ethiopian Africa except *O. (G.) durigaster* Fischer which is from Bismarck Islands.

KEY TO THE SPECIES OF OPIUS (GRIMNIRUS)

1. Thorax 1.4 - 1.5 times as long as high . . . . . 2  
    Thorax at most 1.33 times as long as high . . . . . 5
2. Sternaulus crenulate and rugose. Sheaths of terebra of female rather thin. Legs and body predominantly dark . . . 4. *obuduensis*, n. sp.  
    Sternaulus weakly impressed, only shagreened. Sheaths of terebra of female rather broad. Legs entirely yellow, body with yellow pattern . . . . . 3

3. Thorax 1.4 times as long as high. Face punctate and shagreened. 4.0 mm. M, F. Zaire . . . . . *congoensis* Fischer  
 Thorax 1.5 times as long as high. Face evenly, fine shagreened . . . . 4
4. Length of body 4.3 mm. Head, thorax and base of metasoma dark. Metasomal tergite 1 a little shorter than apically wide. F. Tanzania . . . . . *fuscicarpus* Szépligeti  
 Length of body 2.8 mm. Body entirely bright yellow. Metasomal tergite 1 as long as apically wide. F. Botswana . . . . .  
 . . . . . 5. *toromojaensis*, n. sp.
5. Mesopleuron smooth . . . . . 6  
 Mesopleuron shagreened on disc . . . . . 10
6. Metasomal tergite 2 regularly and densely longitudinally striate. 2.0 mm. F. Bismarck Islands . . . . . *durigaster* Fischer  
 Metasomal tergite 2 shagreened to feebly rugose . . . . . 7
7. Clypeus at least twice as wide as high, lower edge straight. 2 mm. M, F. Nigeria . . . . . 1. *eutownesi*, n. sp.  
 Clypeus about 1.7 times as wide as high, lower edge convex . . . . . 8
8. Head 1.9 times as wide as long, eyes 1.8 times as long as temples. 2.4 mm. M, F. Zaire . . . . . *leroyi* Fischer  
 Head about 2.2 times as wide as long, eyes 2.5 times as long as temples . . . . . 9
9. Metasomal tergite 1 1.3 times as long as apically wide. Hind femora 5 times as long as wide. 1.6 mm. Burundi, M, F. Zaire . . . . .  
 . . . . . *bururianus* Fischer  
 Metasomal tergite 1 as long as apically wide. Hind femora 4 times as long as wide. 1.8 mm. F. Nigeria . . . . . 3. *nigeriensis*, n. sp.
10. Head and metasoma bright yellow, the latter especially on basal half. 3.5 mm. F. South Africa . . . . . *palligaster* Fischer  
 Body entirely black . . . . . 11
11. Mesoscutum delicately shagreened. 2.4 mm. M. Uganda . . . . .  
 . . . . . *mujenjensis* Fischer  
 Mesoscutum entirely smooth . . . . . 12
12. Metasomal tergite 1 longitudinally striate, tergites 2 and 3 evenly, delicately granulate. Antennae as long as body, 20-jointed. [Head 2.4 times as wide as long.] 2.0 mm. F. South Africa . . . . .  
 . . . . . *minicornis* Fischer  
 Metasomal tergite 1, 2 and part of 3 evenly, delicately coriaceous to rugose. Antennae 1.5 times as long as body, 25-27-jointed. [Head 2.0-2.2 times as wide as long.] . . . . . 13
13. Ocelli arranged in an isosceles triangle, the base of which is longer than a side. Cu2 rather parallel sided, ccl 1.8 times as long as cc2. Metasomal tergite 1 as long as apically wide, delicately and evenly coriaceous-rugose. 1.6 mm. M. Uganda, South Africa . . . . .  
 . . . . . *katonicus* Fischer  
 Ocelli arranged in an equilateral triangle. Cu2 distad conspicuously narrowed, ccl 2.2 times as long as cc2. Metasomal tergite 1 1.25

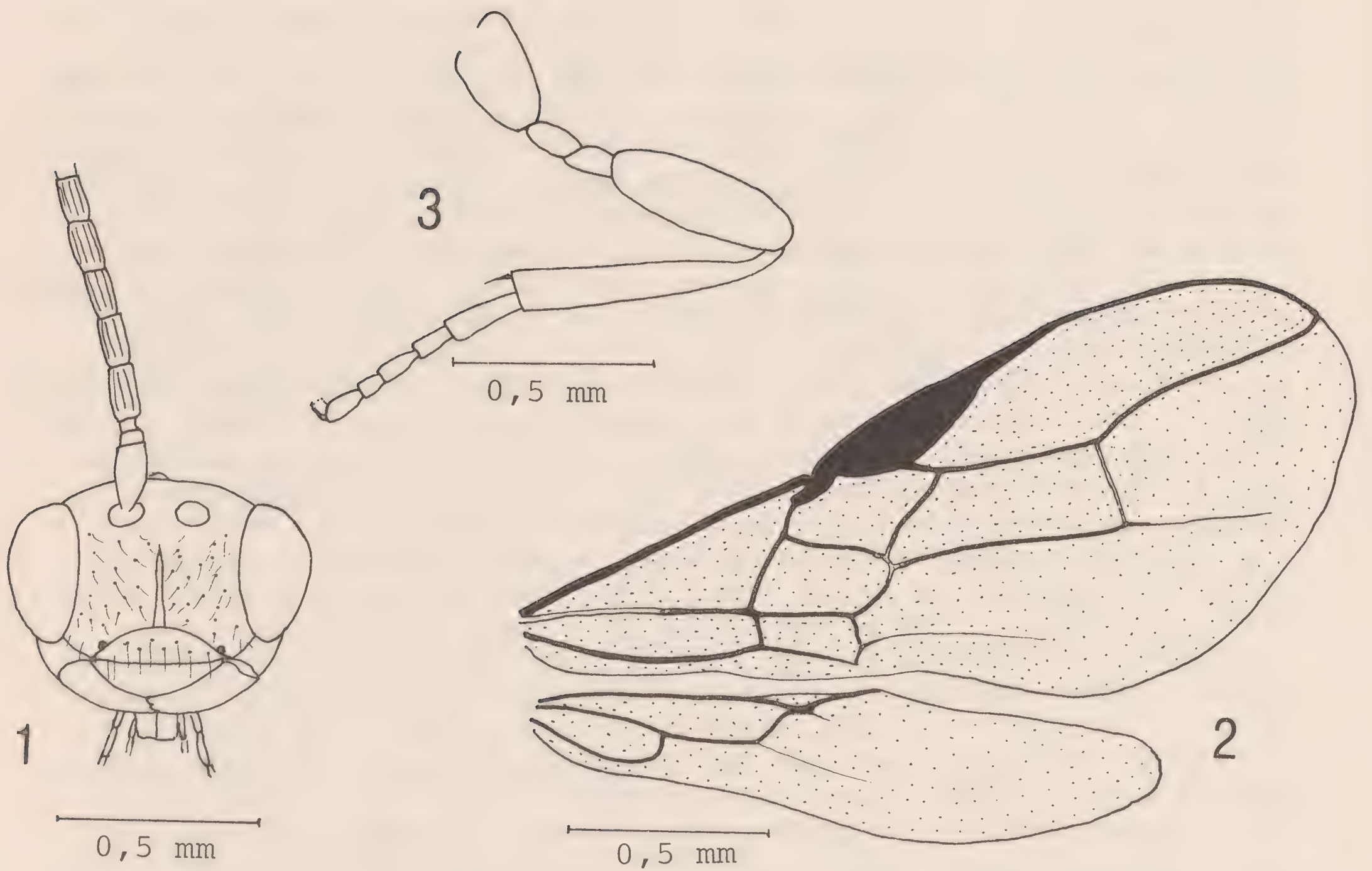
M = male. F = female.

times as long as apically wide, shining. 1.9 mm. F. Nigeria . . .  
 . . . . . 2. *ileifensis*, n. sp.

1. *Opius (Grimnirus) eutownesi*, n. sp. (Figs. 1-3)

Because of the rather short thorax, the shining mesopleura, the hidden terebra and the lack of striae on metasomal tergite 2, close to *Opius leroyi* Fischer, *O. bururianus* Fischer and *O. nigeriensis*, n. sp. *Opius eutownesi*, n. sp. is distinguished from them by the comparatively broad clypeus (2.1 times as wide as high) and the straight lower edge.

*Female*: Head, the major part of the thorax and the posterior half of the metasoma shining. Head 2.2 times as wide as the face, 2.1 times as wide as metasomal tergite 1 posteriorly; only occiput with inconspicuous hairs; eyes protruding, eyes and temples commonly rounded, eyes 2.4 times as long as the temples, the distance of the toruli from each other greater than the distance from the eyes, occiput sinuate; ocelli strongly protruding, the distance between them little more than the diameter of an ocellus, distance between an ocellus and the edge of an eye as long as the width of ocellar area. Face 1.1 times as wide as high, sparsely punctuated and with minute hairs, median polished area weakly developed, margins of eyes nearly parallel sided. Clypeus 2.1 times as wide as high, flat, separated from the face by an evenly curved suture, lower edge straight. Distance of tentorial pits from each other 2.5 times as long as distance from the eyes. Genae shorter than the width of the mandibles basally. Mouth closed, mandibles not expanded basally, maxillary palpi a trifle longer than the height of the head. Eye in lateral view 1.8 times as high as long, 1.5 times as long as the width of the temples, temple parallel sided. Antennae 1.4 times as long as body, 27-jointed; flagellar joint 1 three times, joint 15 and the penultimate twice as long as wide; hairs shorter than width of flagellar segments, in lateral view 3-4 sensillae visible. Thorax 1.33 times as long as high, 1.3 times as high as the head, upper side strongly convex. Mesoscutum 1.25 times as wide as long. In front of the tegulae rather evenly rounded, middle lobe only a little protruding; notauli anteriorly deep, weakly crenulate, reaching on the disc, there disappearing, dorsal fovea weakly elongate, sides entirely margined, the furrows weakly crenulate, anteriorly passing into the notauli. Prescutellar furrow crenulate. Postaxillae and lateral area of metanotum crenulate. Propodeum densely, unevenly rugose, a broad, pentagonal areola indicated. Side of prothorax posteriorly longer than above, very fine chagreened, both furrows narrowly crenulate. Sternaulus crenulate, extending to the anterior margin, not reaching to middle coxa, epicnemial furrow scarcely crenulate, hind marginal furrow simple. Metapleuron shining, rugose posteriorly. Hind femur 3.5 times as long as wide, reaching near the tip of metasoma. Wing: Stigma rather broad, r arising from basal third, r1 half as long as width of stigma, forming a straight line with r2, r2 1.66 times as long as ccl r3 curved to outside, 1.5 times as long as r2, R reaching the tip, nr postfurcal, Cu2 very broad, parallel sided, ccl only 1.2 times as long as cc2 d 1.7 times as long as nr, nv slightly postfurcal, B closed, twice as long as wide, np arising from middle of B; nr in hind wing missing. Metasoma: Tergite 1 as long as wide posteriorly, evenly narrowed towards base, densely coriaceous, dull, dorsal carinae straight, converging towards apex, gradually merging in the sculpture. Tergite 2 fine and densely coriaceous, 3 feebly reticulate only. Terebra hidden, the sheaths (in lateral view) shorter than tergite 1.



Figs. 1-3. *Opius (Grímnirus) eutownesi*, n. sp.: 1, Head with antennal base in frontal view. 2, Fore and hind wing. 3, Hind leg.

Black. Brown: legs, especially the posterior ones and the femora predominantly, clypeus, mouth parts, anellus and wing venation. Tegulae dark. Wing membrane feebly brownish.

*Length of body:* 2 mm.

*Male:* Antennae 28-jointed. Mesopleuron anteriorly feebly reticulate.

*Variability:* Antennae 25-28-jointed.

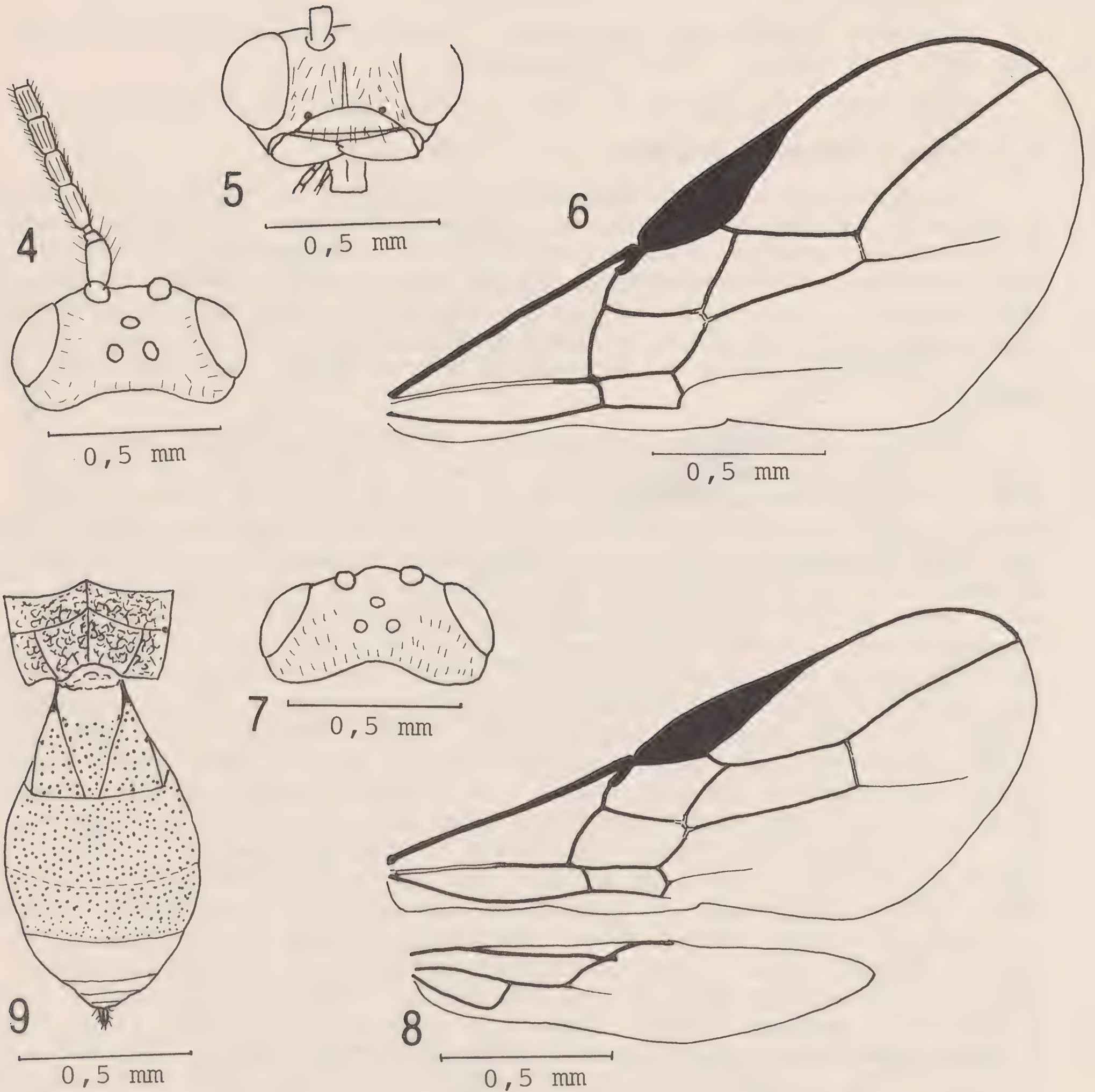
*Holotype:* Female, and *Paratypes:* 1 male, 5 females, Ile-Ife, Nigeria, May 1973, J. T. Medler (CPH, Gainesville).

*Etymology:* The species is named in honor of Dr. H. K. Townes.

## 2. *Opius* (*Grimnirus*) *ileifensis*, n. sp. (Figs. 4-6)

The species is very fine shagreened over metasomal tergite 2. Therefore it has to be ascribed to the subgenus *Grimnirus* Fischer. The species closest to it is *Opius katonicus* Fischer from which it is distinguished by the following characters: cheek considerably shorter than width of mandible at base, ocelli arranged in an equilateral triangle, clypeus 2.5 times as wide as high, Cu<sub>2</sub> strongly narrowed distad, delimited by straight veins, ccl 2.5 times as long as cc<sub>2</sub>, metasomal tergite 1 1.25 times as long as apically wide and rather shining.

*Female:* Smooth: head, mesoscutum, scutellum, postaxillae and the posterior part of metasoma. Head 2.2 times as wide as long, 1.35 times as wide as mesoscutum, 1.9 times as wide as face, 2.4 times as wide as metasomal tergite 1 at apex; laterally and on occipus with fine hairs, eyes protruding, twice as long as temples, eyes and temples commonly rounded, distance of toruli from each other greater than distance from eyes, occiput feebly sinuate; ocelli strongly protruding, arranged in an equilateral triangle, distance from each other as long as diameter of an ocellus, distance of a lateral ocellus from eye as long as width of ocellar area. Face 1.3 times as wide as high, with fine and rather long hairs, very fine and sparsely punctate, median carina only feebly developed, eye margins parallel. Clypeus 2.5 times as wide as high, separated from face by an evenly curved furrow, lower edge straight, in the same plane as the face, with a row of distinct bristle points. Distance of tentorial pits from each other three times as great as distance from an eye. Gena considerably shorter than width of mandible basally. Mouth closed, mandibles not expanded at base, maxillary palpi as long as the head high. Eye in lateral view 1.5 times as high as long, 2.5 times as long as width of temple, the latter parallel sided. Antennae 1.5 times as long as body, 27-jointed; flagellar joint 1 three times, joint 12 twice, the penultimate joint 1.7 times as long as wide; hairs shorter than width of flagellar segments, in lateral view three sensillae visible. Thorax 1.33 times as long as high, 1.3 as high as head, upper side strongly convex. Mesoscutum 1.25 times as wide as long, in front of the tegulae rather evenly rounded, middle lobe little protruding, notauli only anteriorly impressed, feebly sculptured, dorsal fovea narrow and elongate, sides only near the tegulae margined. Prescutellar furrow crenulate. Propodeum irregular rugose. Side of prothorax posteriorly a little longer than above, scarcely noticeably shagreened, the furrows distinct, but only very feebly crenulate. Mesopleuron weakly shagreened, sternaulus crenulate and partly rugose, reaching to anterior margin, ending in front of middle coxa,



Figs. 4-6. *Opius (Grimnirus) ileifensis*, n. sp. : 4, Head with antennal base in dorsal view. 5, Head in ventral view. 6, Fore wing.

Figs. 7-9. *Opius (Grimnirus) nigeriensis*, n. sp. : 7, Head in dorsal view. 8, Propodeum and metasoma in dorsal view. 9, Fore and hind wing.

the remaining furrows simple. Metapleuron shining, uneven, somewhat rugose towards edges. Hind femur 5.5 times as long as wide, reaching to the tip of metasoma. Wing: Stigma wedge shaped, r arising proximad of middle, r1 0.33 times as long as width of stigma, forming a straight line with r2, r2 1.3 times as long as nr, nv as long as the own width postfurcal, B closed, 2.5 times as long as wide, a little enlarged distally, np arising from middle of B; nr in hind wing missing. Metasoma: Tergite 1 1.25 times as long as apically wide, towards base evenly narrowed, posterior width 1.5 times as long as basal one, shining, with a longitudinally striate tendency, dorsal carinae markedly developed only near base, converging in basal half, parallel in apical half, reaching near hind margin. Tergite 2 very fine shagreened. Terebra scarcely projecting, in lateral view as long as tergite 1.

Black. Yellow: Scape, anellus, clypeus, mouth parts, legs, tegulae, wing venation and ventral side of metasoma at base. Dirty yellow: anterior half of dorsal surface of metasoma, tergite 1 with dark shadow. Wing membrane hyaline.

*Length of body:* 1.9 mm.

*Male:* Unknown.

*Holotype:* Female, Ile-Ife, Nigeria, July 1973, J. T. Medler (CPH, Gainesville).

### 3. *Opius (Grimnirus) nigeriensis*, n. sp. (Figs. 7-9)

The species is ascribed to the subgenus *Grimnirus* Fischer. The taxonomically nearest species is *Opius bururianus* Fischer from which it is distinguished by the shorter metasomal tergite 1 (apically 1.2 times as wide as long), and the thick hind femora (4 times as wide as long).

*Female:* Head, thorax and metasoma apically smooth. Head 2.2 times as wide as long, 1.3 times as wide as mesoscutum, 1.75 times as wide as face, 1.8 times as wide as metasomal tergite 1; eyes protruding, at temples strongly narrowed, upper side only laterally and on occiput feebly hairy, distance of toruli from each other longer than distance from eyes, occiput weakly sinuate; ocelli large and protruding, distance from each other as long as diameter of an ocellus, distance of lateral ocellus from eye as long as width of ocellar area. Face as wide as high, with very fine punctures and bright hairs, median carina narrow and without hairs, eye margins ventrad a little diverging. Clypeus 1.7 times as wide as high, delimited by a semicircular suture, rather flat, lower edge rounded. Tentorial pits small, distance from each other twice as long as distance from an eye. Genae as long as basal width of mandible. Mouth closed, mandibles at base not expanded. maxillary palpi as long as height of head. Eye in lateral view 1.8 times as high as long, twice as long as width of temple, marginal furrow of temple feebly crenulate. Antennae 1.33 times as long as body, 23-jointed; flagellar joint 1 three times as long as wide, a trifle narrower than joint 2, joint 10 and the penultimate twice as long as wide; hairs shorter than width of joints, in lateral view three sensillae visible. Thorax 1.1 times as long as high, 1.33 times as high as head, dorsally strongly rounded. Mesoscutum 1.3 times as wide as long, in front of tegulae evenly rounded, notauli anteriorly deep, crenulate, reaching on disc, disappearing there, dorsal fovea drop-shaped, sides margined, the marginal furrows

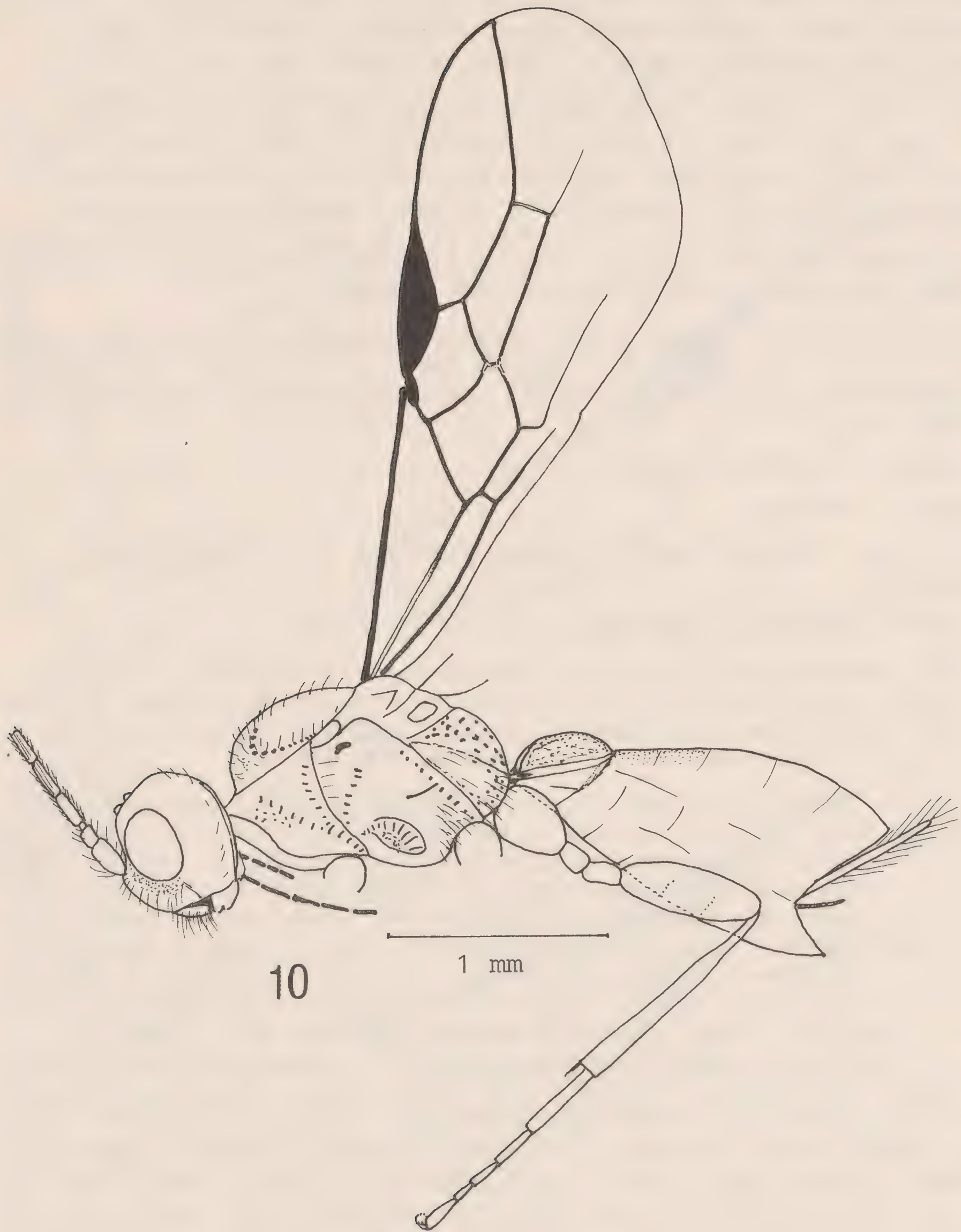


Fig. 10. *Opius (Grimnirus) obuduensis*, n. sp. body in lateral view.



crenulate, anteriorly passing into notauli. Praescutellar fovea with some carinae in the depth. Lateral areas of metanotum crenulate. Propodeum behind base declivious, densely reticulate, with feebly indicated pentagonal areola, basal carina, central carina and costulae. Side of prothorax posteriorly 1.8 times as long as above, both furrows crenulate, uniting below. Sternaulus broad, oval, crenulate, on both sides shortened, epicnemial furrow deep, sinuate, inconspicuously crenulate, posterior marginal furrow feebly punctate, nearly simple. Metapleuron rugose. Hind femora 4.0 times as wide as long, reaching as far as tip of metasoma. Wing: Stigma moderately wide, r arising before middle, r1 0.4 times as long as width of stigma, forming an obtuse angle with r2, r2 1.8 times as long as ccl, r3 curved outside, 1.7 times as long as r2, R reaching to wing apex, nr postfurcal, Cu2 parallel sided, ccl 1.33 times as long as cc2, d 1.9 times as long as nr, nv 0.5 of own length postfurcal, B distad a little widened, 3.5 times as long as wide, closed, np arising from middle of B; nv in hind wing missing. Metasoma: Oval, nearly as broad as thorax. Tergite 1 apically 1.2 times as wide as long, evenly narrowed to base, posteriorly 1.2 times as wide as at base, dorsal carinae straightly converging to hind margin, delicately granulate, basally shining. Tergites 2 and 3 densely, delicately granulate, hind margin of tergite 3 and the rest of the metasoma shining. Terebra hidden, sheaths in lateral view shorter than tergite 1.

Black. Yellow: clypeus, pedicel, anellus, wing venation and the ventral surface of metasoma at base. Dark brown: legs predominantly, tegulae and mouth parts more or less. Wing membrane hyaline.

*Length of body:* 1.8mm.

*Male:* Unknown.

*Holotype:* Female, Ile-Ife, Nigeria, August-September 1974, J. T. Medler (CPH, Gainesville).

#### 4. *Opius (Grimnirus) obuduensis*, n. sp. (Fig. 10)

With regard to the very fine shagreen over the middle of the gaster to be ascribed to the subgenus *Grimnirus* Fischer. Because of the long thorax closest to *Opius fuscicarpus* Szépligeti, and *O. toromojoensis*, n. sp. *O. obuduensis*, n. sp. is distinguished from them by the strongly crenulate sternaulus, the rather thin sheaths of terebra of female, and the predominantly dark coloration of body and legs.

*Female:* Predominantly smooth and shining. 1.8 times as wide as long, 1.2 times as wide as mesoscutum, 1.75 times as wide as face, 1.66 times as wide as metasomal tergite 1 at apex; eyes not protruding, at the temples as wide as at eyes, the latter as long as temples, only laterally and the occiput with few fine hairs, occiput only feebly sinuate, distance between toruli as long as their distance from eyes; ocelli scarcely protruding, small, distance between ocelli longer than the diameter of an ocellus, distance between lateral ocellus and eye margin as long as ocellar area wide. Face 1.2 times as wide as high, feebly shagreened to rugose, especially near compound eyes fine and rather densely punctuate and hairy, median carina distinctly developed and smooth, eye margins parallel. Clypeus twice as wide as high, separated from face by a simple, semicircular furrow, lower edge a little sinuate, situated in the same plain as face; with some hair-bearing punctures. Distance of

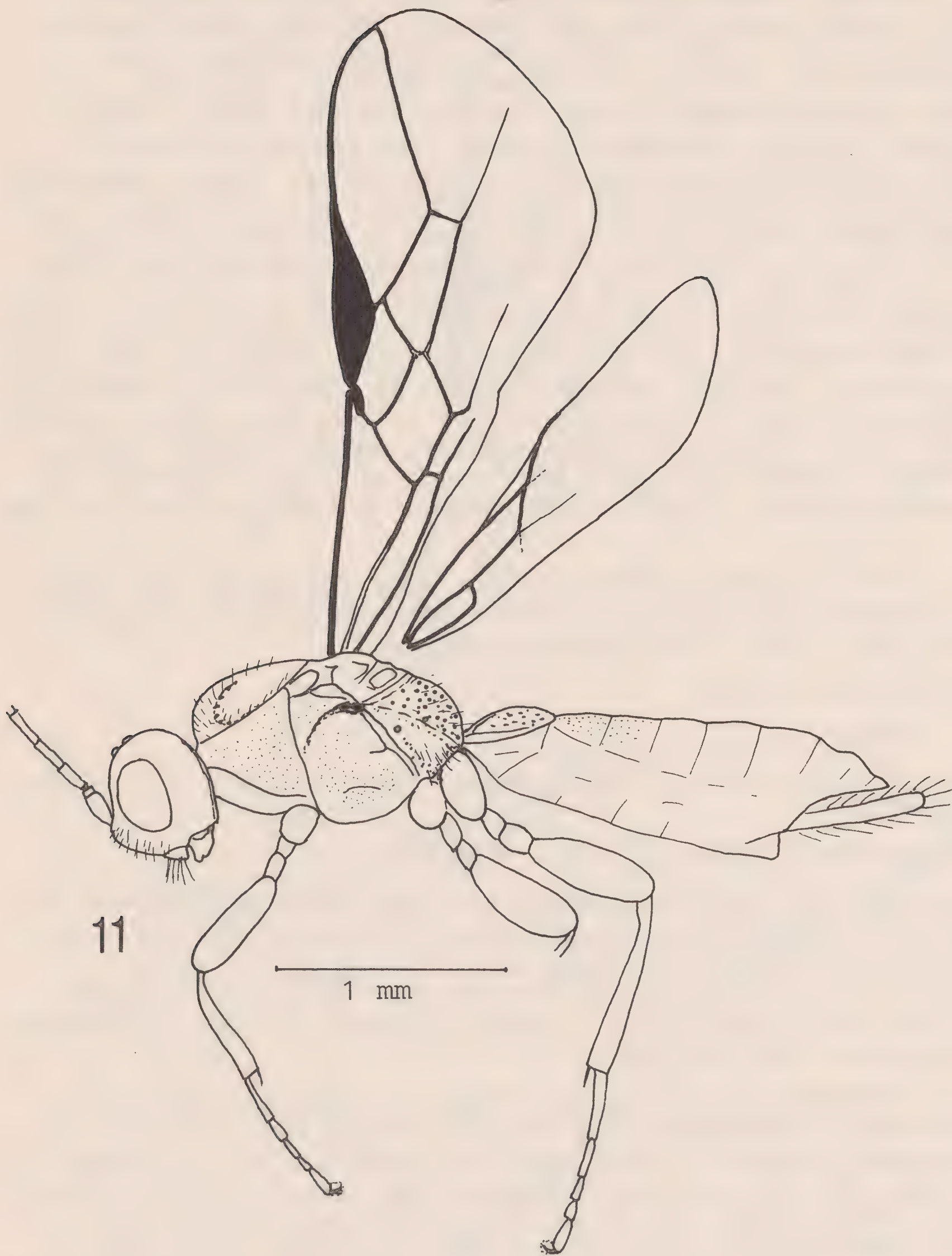


Fig. 11. *Opius (Grimnirus) toromojaensis*, n.sp. Lateral view.

tentorial pits from each other twice as long as distance from an eye. Mouth closed, mandibles at base not expanded, maxillary palps as long as height of head. Genae as long as basal width of mandible. Eye in lateral view 1.4 times as high as long, as long as temple wide, the latter broader below than above. Antennae as long as body, 27-jointed; flagellar segment 1 3.5 times, segment 10 three times, the penultimate 1.8 times as long as wide; segments of apical fourth gradually shorter; hairs shorter than width of segments, in lateral view three sensillae visible. Thorax 1.5 times as long as high, 1.5 times as high as head, upper surface weakly rounded. Mesoscutum 1.15 times as wide as long, in front of the tegulae evenly rounded, notauli anteriorly impressed, deep and crenulate, dorsal fovea only little elongate, sides margined, anteriorly crenulate, the marginal furrows passing into the notauli. Prescutellar furrow crenulate. Metanotum feebly rugose. Propodeum strongly and rather densely rugose. Furrows of sides of pronotum broad, crenulate and uniting below. Sternaulus broad, crenulate, somewhat rugose, reaching as far as anterior margin, posteriorly shortened. Epicnemial furrow weakly crenulate, posterior marginal furrow narrow and feebly crenulate. Metapleuron predominantly with minute rugosity. Hind femur three times as long as wide. Wing: Stigma moderately broad, wedge shaped, r arising from before middle of stigma, r1 half as wide as stigma, r2 1.6 times as long as ccl, r3 straight, 1.7 times as long as r2, R reaching tip of wing, nr postfurcal, Cu2 distad a little narrowed, d 1.25 times as long as nr, nv only a little postfurcal, B posterodistad open, d passing in a sinuate line into np; nr in hind wing missing. Metasoma: Tergite 1 a trifle shorter than apically wide, only a little narrowed towards base, dorsal carinae developed only in basal third; densely reticulate, dull, only a little convex. Tergite (2 + 3) very feebly shagreened. The remainder of metasoma without sculpture. Sheaths of terebra only a little projecting, in lateral view little longer than tergite 1, hypopygium not reaching entirely as far as tip of metasoma.

Black: head, thorax, hind coxae and metasomal tergite 1. Dark brown: hind legs, and fore and middle legs in part; the remainder of the legs brown. Hind margins of tergites dark. Yellow: genae, mouth parts and anelli. Antennae and wing venation brown, wing membrane hyaline.

*Length of body:* 3 mm.

*Male:* Unknown.

*Holotype:* Female, Obudu, Nigeria, April 13, 1973, J. T. Medler (CPH, Gainesville).

##### 5. *Opius (Grimnirus) toromojaensis*, n. sp. (Fig. 11)

Among the species of the subgenus *Grimnirus* Fischer nearest to *Opius fuscicarpus* Szepilgeti. The new species is distinguished from the latter by metasomal tergite 1, which is as long as apically wide, by the bright reddish-brown coloration of the body, and the minor size of the body (2.8 mm).

*Female:* Predominantly bald, in part shining, partly shagreened. Head 1.8 times as wide as long, 1.3 times as wide as mesoscutum, 1.75 times as wide as face, eyes only a little protruding, 1.2 times as long as temples, the latter posteriorly narrowed, distance of toruli from each other and from eyes as long as their diameter, occiput clearly sinuate; ocelli protruding, distance between them as long as the diameter of an ocellus, distance between lateral ocellus

and compound eye as long as width of ocellar area. Face 1.25 times as wide as high, uneven, very fine and bright hairy, median carina very blunt, widened ventrad and shining, eye margins parallel. Clypeus 2.2 times as wide as high, separated from face by a simple, semicircular furrow, lower edge rounded, in the same plain as the face, with fine, bright hairs. Distance between tentorial pits twice as long as distance from an eye. Genae as long as width of mandibles at base. Mouth closed, mandibles at base not expanded, maxillary palpi as long as height of head. Eye in lateral view 1.5 times as high as long, 1.1 times as long as width of temple, the latter parallel sided. Antennae of the present example damaged, 25 joints visible, probably longer than body; flagellar segment 1 three times as long as wide, segment 2 as long as segment 1, the last visible segment twice as long as wide; hairs shorter than antennal segments wide, in lateral view 2 or 3 sensillae visible. Thorax 1.5 times as long as high, 1.2 times as high as the head, dorsal surface only weakly convex, nearly parallel with the ventral surface. Mesoscutum as wide as long, lateral lobes rounded, middle lobe little protruding, notauli anteriorly deep and crenulate, reaching on disc, but here disappearing, dorsal fovea short, narrow, margined on lateral edges, the marginal furrows passing into the notauli. Pre-scutellar furrow crenulate. Lateral areas of metanotum feebly striate. Propodeum densely, fine rugose, dull. Side of prothorax posteriorly as long as above, very fine shagreened, furrows without crenulation. Mesopleuron very fine shagreened, sternaulus impressed, only shagreened, posterior marginal furrow simple. Metapleuron partly shagreened and with long, bright hairs. Hind femora three times as long as wide, not reaching as far as tip of metasoma. Wing: Stigma moderately wide, wedge shaped, r arising a little from before middle, r1 0.25 times as long as width of stigma, forming a blunt angle with r2, r2 1.66 times as long as ccl, r3 nearly straight, twice as long as r2, R reaching tip of wing, nr postfurcal, Cu2 narrowed distad, d 1.33 times as long as ccl, nv as long as the own width postfurcal, B posterodistad open, d passing in a sinuate line into np; nv in hind wing only feebly indicated as a fold. Metasoma as long as head and thorax together. Tergite 1 as long as apically wide, evenly narrowed to base, dorsal carinae developed only at base and far distant from each other, fine and densely granulate, at hind corners shining. Tergites 2 + 3 feebly shagreened, the sculpture disappearing posteriorly. The remainder of metasoma shining. Sheaths of terebra little projecting, in lateral view 1.7 times as long as Tergite 1. Tip of hypopygium incised, hypopygium ending considerably before tip of metasoma.

Bright reddish brown. Dark: flagellum, tips of mandibles, apical tarsal segments and sheaths of terebra. Yellow: mouth parts, tegulae and wing venation. Wing membrane hyaline.

*Length of body:* 2.8 mm.

*Male:* Unknown.

*Holotype:* Female, Toromoja, Botletle, Botswana, April 26, 1975, Peter Ginn (CPH, Gainesville).

#### Subgenus **FREKIUS** Fischer

Subgenus *Frekius* Fischer, 1971. Ann. Naturh. Mus. Wien 75: 390.

*Type-species:* *Opius castaneus* Fischer (designated by Fischer 1972). Appeared actually 1972. Fischer, 1972. Das Tierreich 91: 70, 75 (description).

Fischer, 1977. Das Tierreich 96: 67 (New World species).

Mesoscutum with dorsal fovea, precoxal suture sculptured, mouth closed, mandibles not expanded at base, clypeus without tooth on lower edge, head dorsally smooth or at most occiput punctuate, metasoma beyond tergite 1 smooth.

There are 5 New World and 11 Old World species. One African species is described as new in the present paper.

#### KEY TO THE OLD WORLD SPECIES

1. nr antefurcal or interstitial . . . . . 2  
nr postfurcal . . . . . 6
2. Stigma wide, half egg-shaped . . . . . 3  
Stigma narrow, wedge-shaped, or if rather wide, then triangular . . . 5
3. Mesoscutum evenly and intensively hairy. 3.2 mm. M. Canary Islands .  
. . . . . *beckeri* Fischer  
Hairy only declivity of mesoscutum, two stripes along the imaginary  
course of notauli, and the lateral margins anteriorly more or less . 4
4. Body nearly entirely brown. Epicnemial furrow and anterior mesosternal  
furrow crenulate. Hind femora 4 times as long as wide. Median area  
of metasomal tergite 1 evenly rugose. Base and tip of stigma pale.  
3.8 mm. F. USSR (Guzar, Uzbekistan) . . . . . *imitabilis* Telenga  
Black: Head, thorax predominantly, and metasomal tergite 1. Epicnemial  
furrow and anterior mesosternal furrow simple. Hind femora three  
times as long as wide. Median area of metasomal tergite 1 only with  
traces of rugae. Stigma entirely brown. 3.8 mm. F. Algeria  
(Oran) . . . . . *barbieri* Fischer
5. r2 1.25 times as long as ccl. 5.0 mm. M. Madagascar . . . . .  
. . . . . *contrarius* Fischer  
r2 1.5 times as long as ccl. 2.6 mm. M. Zaire. . *fukuensis* Fischer
6. Head less than twice as wide as long, not narrowed beyond eyes . . . 7  
Head at least twice as wide as long . . . . . 9
7. Thorax 1.6 times as long as high. Posterior marginal furrow of meso-  
pleuron and epicnemial furrow simple. 6.0 mm. M. Madagascar:  
. . . . . cf. *seyrigi* Fischer  
Thorax 1.33 times as long as high. Posterior marginal furrow and  
epicnemial furrow crenulate. 2.2 mm. M. USSR (Kazan, Tatarskaya  
A.S.S.R.): . . . . . *rossicus* Szépligeti
8. Thorax 1.5 times as long as high. 2.6 mm. M, F. Madagascar . . . . .  
. . . . . *subangulatus* Granger  
Thorax 1.25 to 1.33 times as long as high . . . . . 9
9. R ending clearly before tip of wing. F. 1.8 mm. Bulgaria . . . . .  
. . . . . cf. *plovdivensis* Zaykov & Fischer  
R reaching to tip of wing . . . . . 10
10. Thorax reddish brown. Projecting part of terebra 0.33 times as long as  
metasoma. 2.7 mm. F. Queensland . . . . *terraereginae* Fischer

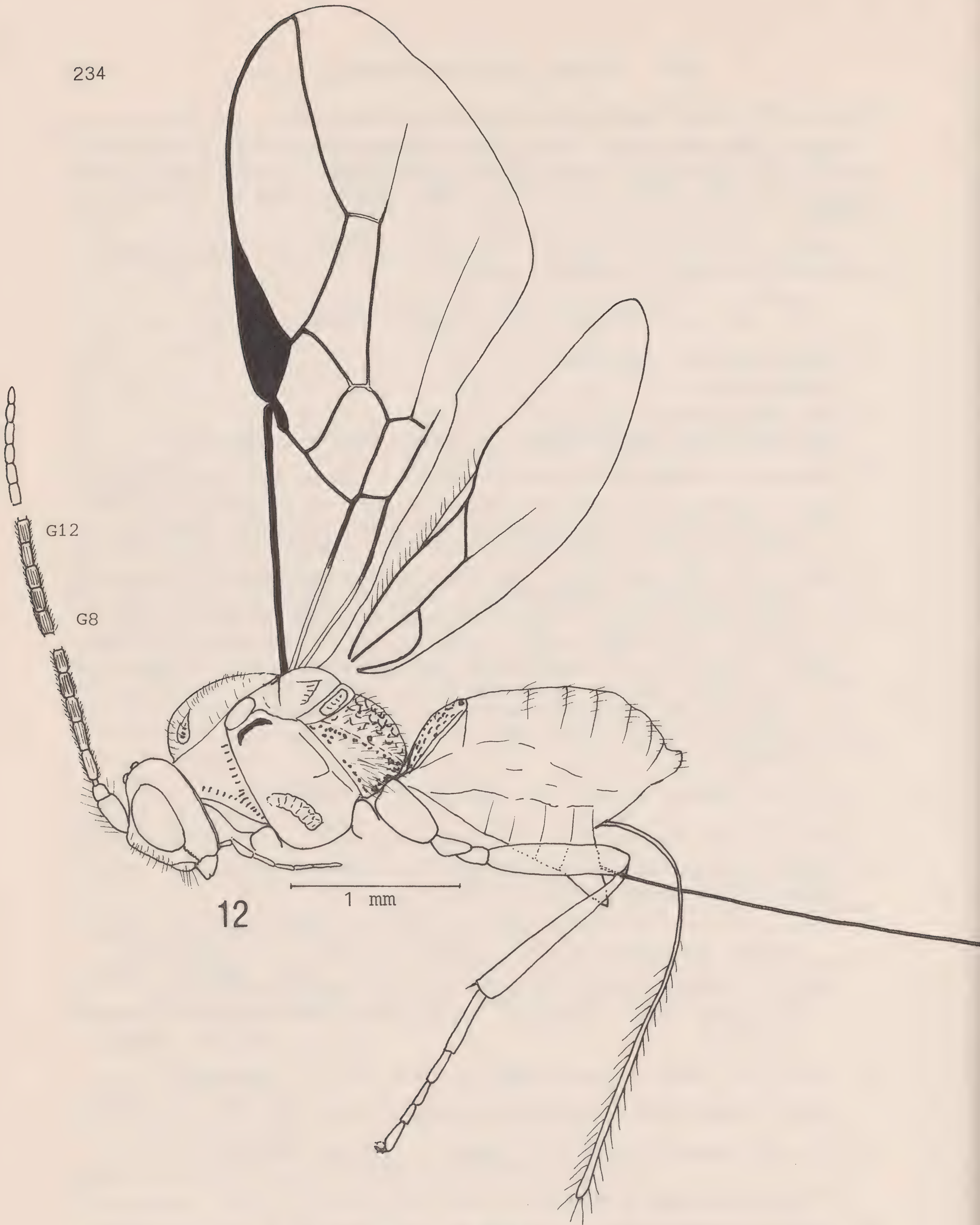


Fig. 12. *Opius (Frekius) nairobius*, n.sp. Lateral view.

- Thorax entirely or predominantly black. Terebra either scarcely projecting or at least 0.75 times as long as metasoma . . . . . 11
11. Terebra of female scarcely projecting. 2.3 mm. F. Madagascar . . . . .  
 . . . . . *castaneus* Granger  
 Terebra of female at least 0.75 times as long as metasoma . . . . . 12
12. Legs entirely yellow. Terebra something longer than metasoma. Head 2.3 times as wide as long. 3.1 mm. F. Kenia: . . . . .  
 . . . . . 1. *nairobicus*, n. sp.
- Legs brown. Terebra 0.75 times as long as metasoma. Head twice as wide as long. 4.0 mm. F. Zaire . . . . . *lukuganus* Fischer

1. **Opius (Frekius) nairobius**, n. sp. (Fig. 12)

Because of the stout thorax, the black coloration of the body, and the long terebra among the species of the subgenus *Frekius* Fischer nearest to *O. lukuganus* Fischer. The new species is distinguished from the latter by the yellow legs, the broader head, and the still longer terebra of female.

*Female*: Smooth: the entire body except the propodeum and metasomal tergite 1. Head 2.3 times as wide as long, 1.15 times as wide as mesoscutum, 1.8 times as wide as face, twice as wide as metasomal tergite 1 apically; dorsal surface only with inconspicuous hairs; eyes protruding, 2.4 times as long as temples, eyes and temples commonly rounded, distance between toruli and between toruli and eyes as long as diameter of toruli, occiput medially distinctly sinuate; ocelli protruding, distance between them as long as diameter of an ocellus, distance of lateral ocellus to eye as long as width of ocellar area. Face 1.2 times as wide as high, fine, bright and sparsely hairy-punctured, median carina narrow, smooth and shining, eye margins parallel. Clypeus 2.4 times as wide as high, only little convex, separated from face by a little curved suture, lower edge rounded, with very fine hairs and punctures. Genae shorter than basal width of mandible. Mouth closed, mandibles not expanded at base, maxillary palpi as long as height of head. Eye in lateral view twice as high as long, 1.25 times as long as width of temple, parallel sided. Antennae 1.5 times as long as body, 34-jointed; flagellar segment 1 three times, segment 12 2.2 times, and the penultimate twice as long as wide; hairs as long as width of antennal segments, in lateral view 4 sensillae visible. Thorax 1.3 times as long as high, 1.6 times as high as head, dorsal surface strongly convex. Mesoscutum 1.2 times as wide as long, in front of tegulae rather evenly rounded, middle lobe only a little protruding; notauli deeply impressed anteriorly, inconspicuously sculptured, reaching on disc, but there disappearing, the imaginary course indicated by a band of fine hairs, dorsal fovea distinct, sides only near tegular margined. Prescutellar furrow with some longitudinal ribs. Postaxillae medially crenulate. Lateral areas of metanotum with few inconspicuous crenulae. Propodeum densely reticulate. Side of prothorax posteriorly longer than above, the furrows crenulate, uniting below. Sternaulus broad, oval, irregularly crenulate and rugose, the other furrows simple. Metapleuron rugose, shining in the middle. Hind femora 5 times as long as wide, not entirely reaching as far as tip of metasoma. Wing: Stigma wide, wedge-shaped, arising from basal third, r1 0.4 times as long as width of stigma, passing into r2 in a sinuate line, r2 1.5 times as long as ccl, r3

curved outward, 1.5 times as long as r2, R reaching tip of wing, nr strongly postfurcal, Cu2 distad strongly narrowed, ccl weakly bisinuate and 2.35 times as long as cc2, d twice as long as nr, nv little postfurcal, B closed, 2.1 times as long as wide, distad only little widened, np arising from middle of B; nr in hind wing missing. Metasoma: Tergite 1 as long as apically wide, posteriorly with parallel sides, basad little narrowed, dorsal carinae near base converging, parallel from middle to hind margin, median area only a little elevated, rugose, lateral areas shining. Sheaths of terebra as long as metasoma and thorax together. Hypopygium reaching near tip of metasoma.

Black. Yellow: base of antennae in part, clypeus, genae, mouth parts, all legs, tegulae, wing venation and a part of the ventral side of metasoma. In strong light two brown stripes and a patch on disc of mesoscutum visible; the same the anterior and posterior edges of metanotum. Wing membrane hyaline.

*Length of body:* 3.1 mm.

*Male:* Unknown.

*Holotype:* Female, Karen, Nairobi, Kenya, October 1972, 2000± m. C'ngaham - Van Someren. *Paratype:* 1 female, same date, December 1972 (CPH, Gainesville).

#### REFERENCES

- Fischer, M. 1972. Hymenoptera, Braconidae, Opiinae I. Das Tierreich 91: I - XII, 1-620.
- Fischer, M. 1973. Die athiopischen *Opius*-Arten der Sektion A, aufgeteilt auf die Untergattungen. Ann. Naturh. Mus. Wien 75: 387-433.
- Fischer, M. 1973. Über die afrikanischen Opiinae der Sammlung Townes in American Entomological Institute in Ann Arbor, Michigan. Polskie Pismo Ent. 43: 241-272.
- Fischer, M. 1977. Hymenoptera, Braconidae, Opiinae II - Amerika. Das Tierreich 96: I - XXVII, 1-1001.
- Fischer, M. Illustrierte Redeskriptionen von Opiinen aus der UdSSR und neuer Bestimmungsschlüssel zu den palaarktischen Arten des Subgenus *Utetes* Foerster. Ann. Naturh. Mus. Wien, in press (*O. imitabilis* Telenga ascribed to subgenus *Frekius* Fischer).
- Zaykov, A. and Fischer, M. Über Opiinae aus Bulgarien. Ann. Naturh. Mus. Wien, in press (description of *O. plovdivensis*, n. sp.).